



# EBRP15L45C



## Excellent Schottky Barrier Rectifiers



DO-214AB(SMC)

| Primary Characteristics |     |    |
|-------------------------|-----|----|
| $I_F$                   | 15  | A  |
| $V_{RRM}$               | 45  | V  |
| $I_{FSM}$               | 200 | A  |
| $V_F$                   | 0.5 | V  |
| $T_J$ max               | 150 | °C |

| Features                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Low profile package</li><li>• Ideal for automated placement</li><li>• Guard Ring for over voltage protection</li><li>• Low forward voltage drop</li><li>• Component in accordance to RoHS 2002/95/EC</li></ul> |

| Mechanical Data                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Case: DO-214AB (SMC)</li><li>• Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0</li><li>• Terminals: Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208</li><li>• Polarity: Cathode Band</li><li>• Weight: 0.231 grams (approximate)</li></ul> |

| Ordering Information |                    |         |                    |
|----------------------|--------------------|---------|--------------------|
| Part No.             | Remark             | Package | Packing            |
| EBRP15L45C           | General            | SMC     | 3000 / Tape & Reel |
| EBRP15L45C-H         | Halogen Free       |         |                    |
| EBRP15L45C-Q         | AEC-Q101 qualified |         |                    |

| Maximum Ratings (TA=25°C unless otherwise noted)                                        |                 |                                     |      |
|-----------------------------------------------------------------------------------------|-----------------|-------------------------------------|------|
| PARAMETER                                                                               | SYMBOL          | EBRP15L45C                          | UNIT |
| Maximum repetitive peak reverse voltage                                                 | $V_{RRM}$       | 45                                  | V    |
| Maximum RMS voltage                                                                     | $V_{RMS}$       | 31.5                                | V    |
| Maximum DC blocking voltage                                                             | $V_{DC}$        | 45                                  | V    |
| Maximum average forward rectified current                                               | $I_F$           | 15                                  | A    |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load      | $I_{FSM}$       | 200                                 | A    |
| Maximum Instantaneous Forward Voltage<br>IF=3A @ 25°C<br>IF=3A @ 125°C<br>IF=15A @ 25°C | $V_F$           | 0.34 Typ.<br>0.25 Typ.<br>0.50 Max. | V    |
| Maximum DC Reverse Current @ TA=25°C<br>at Rated DC Blocking Voltage @ TA=125°C         | $I_R$           | 0.5<br>35                           | mA   |
| Typical Junction Capacitance(NOTE1)                                                     | $C_j$           | 760                                 | pF   |
| Typical Thermal Resistance                                                              | $R_{\theta JC}$ | 10                                  | °C/W |
| Operating Temperature Range                                                             | $T_J$           | -55 to +150                         | °C   |
| Storage Temperature Range                                                               | $T_{STG}$       | -55 to +150                         | °C   |
| Marking Code                                                                            |                 | P15L45C、15L45C                      |      |

NOTES:

1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC



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### Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

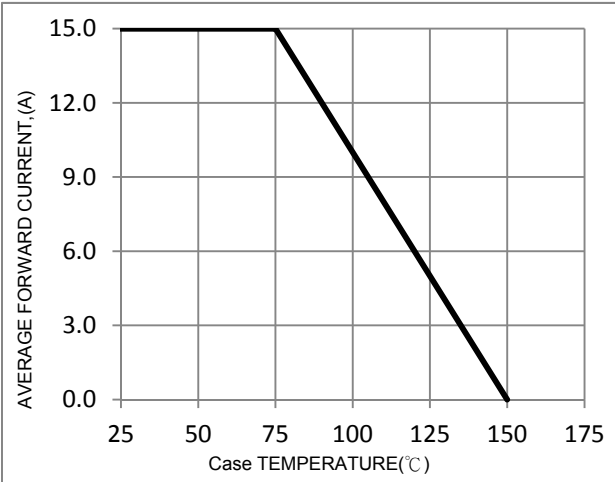


FIG. 2-Typical Forward Characteristics

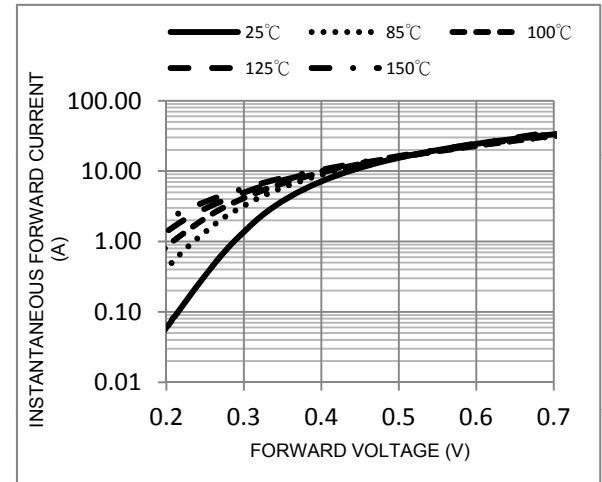


FIG. 3-Maximum Non-Repetitive Forward Surge Current

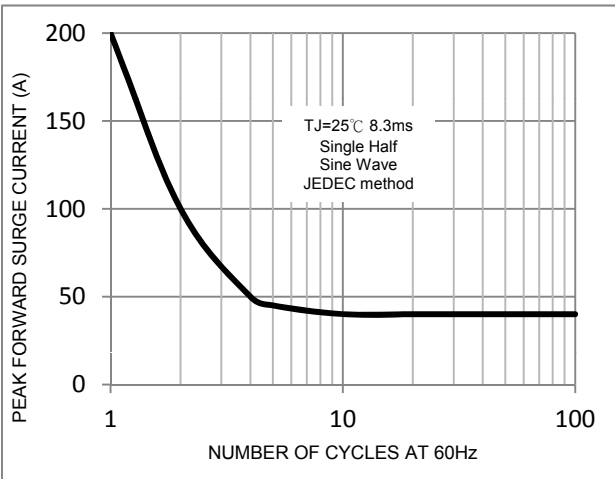


FIG. 4-Typical Reverse Characteristics

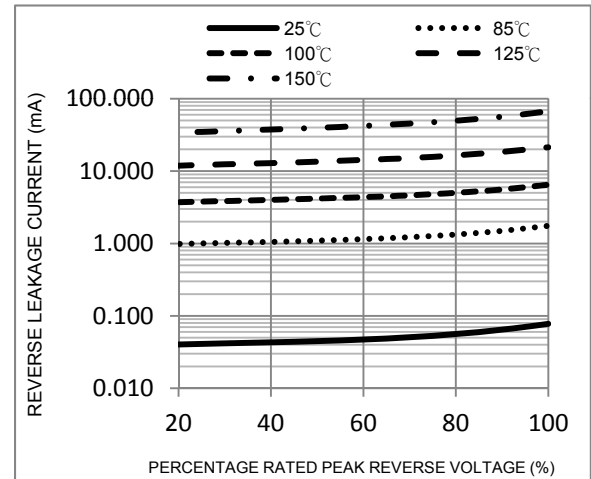
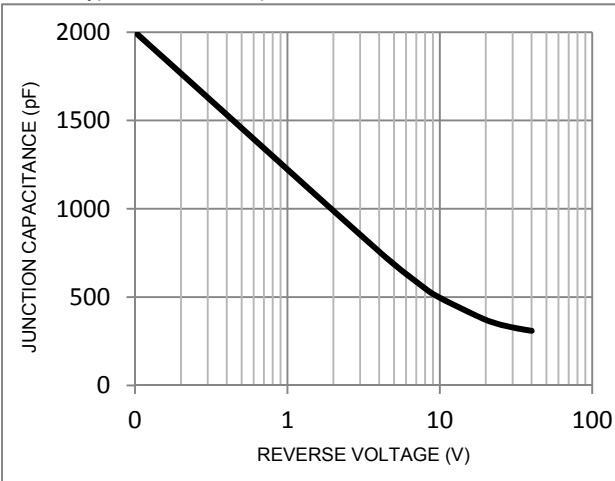


FIG. 5-Typical Junction Capacitance



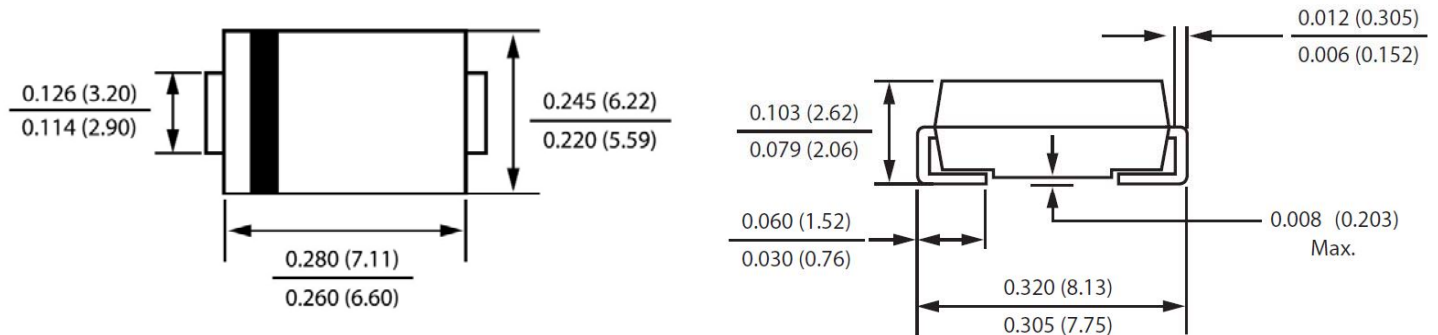


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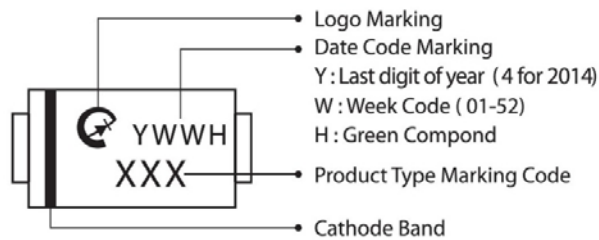
### Package Outline Dimensions



### DO-214AB(SMC)

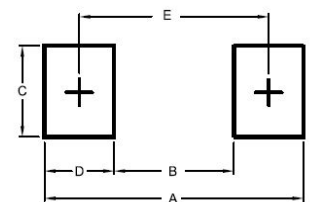
Dimensions in inches and (millimeters)

### Marking Information



### Suggested Pad Layout

| Dimension | Outline | SMC (DO-214AB) |
|-----------|---------|----------------|
| A         |         | 9.40           |
| B         |         | 4.40           |
| C         |         | 3.30           |
| D         |         | 2.50           |
| E         |         | 6.80           |



### Tape & Reel Specification

| ITEM                   | SYMBOL | SMC (mm)   |
|------------------------|--------|------------|
|                        |        | DO-214AB   |
| Carrier width          | A      | 6.3(max)   |
| Carrier length         | B      | 8.6(max)   |
| Carrier depth          | C      | 2.9(max)   |
| Sprocket hole          | d      | 1.50±0.1   |
| Reel outside diameter  | D      | 330±2.0    |
| Feed hole diameter     | D0     | 13.5±1     |
| Reel inner diameter    | D1     | 50 (min.)  |
| Sprocket hole position | E      | 1.75±0.1   |
| Punch hole position    | F      | 7.5±0.05   |
| Sprocket hole pitch    | P      | 8.0±0.1    |
| Sprocket hole pitch    | Po     | 4.0±0.1    |
| Embossment center      | P1     | 2.0±0.05   |
| Overall tape thickness | T      | 0.6 (max)  |
| Tape width             | W      | 16.0±0.3   |
| Reel width             | W2     | 22.4 (max) |
| Reel width             | W1     | 18.4 (max) |

